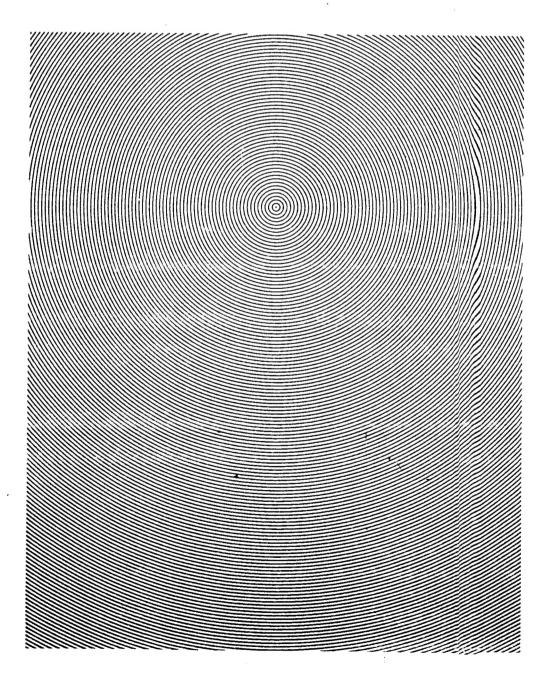


# Verstärker VG 20/VG 30

## Service manual



## TECHNISCHE DATEN

| Intermodulationsverzerrung                   | W   |
|--|---|
| $(70 \text{ Hz}: 7 \text{ kHz} = 4:1) \dots$ | Weniger als 0,9%                            |
|  | bei 10 W an 4 Ohm                           |
| Restrauschen                                 |   |
| Dämpfungsfaktor                              |   |
| Finance mating this his aid                  | 40 (8 Ohm)                                  |
| Eingangsempfindlichkeit/                     |   |
| Impedanz '                                   | 0.5 mV/50 kOhm                              |
| Phono  |   |
| AUX  |   |
| TAPE   | 150 mv/50 kOnm                              |
| Max. Eingangspegel                           | 150   |
| Phono  | 150 mv                                      |
| Geräuschspannungs-                           |   |
| abstand (IHF, A)                             | 20 4B                                       |
| Phono  |   |
| Tuner, AUX, Tape                             | 92 08                                       |
| Frequenzumfang                               | Standard DIAA Kunin +1 dD                   |
|  | Standard RIAA-Kurve ±1 dB                   |
|  | 40 Hz – 20 kHz                              |
| Tuner, AUX, Tape                             | 20 HZ - 25 KHZ, ±3 0B                       |
| Klangregelung Baß                            | +9 dB bai 100 Ha                            |
| Höhen  |   |
| Gehörrichtige Laut-                          | ±8 db bei 10 kHz                            |
|  | 16 dB boi 100 Hz                            |
| stärkekontur(-30 dB)                         |   |
| (-30 dB) Lautsprecherimpedanz                | 4 Ohm                                       |
|  |   |
|  | 71 - 20 20 20 20 20 20 20 20 20 20 20 20 20 |

#### **ALLGEMEINES**

 Leistungsaufnahme
 140 Watt (VG20)

 200 Watt (VG30)

 Netzspannung
 220 V Wechselstrom, 50 Hz

 Abmessungen
 421(B) × 240(T) × 79(H) mm

 Nettogewicht (Ca.)
 3.5 Kg (VG20)

 3.6 Kg (VG30)

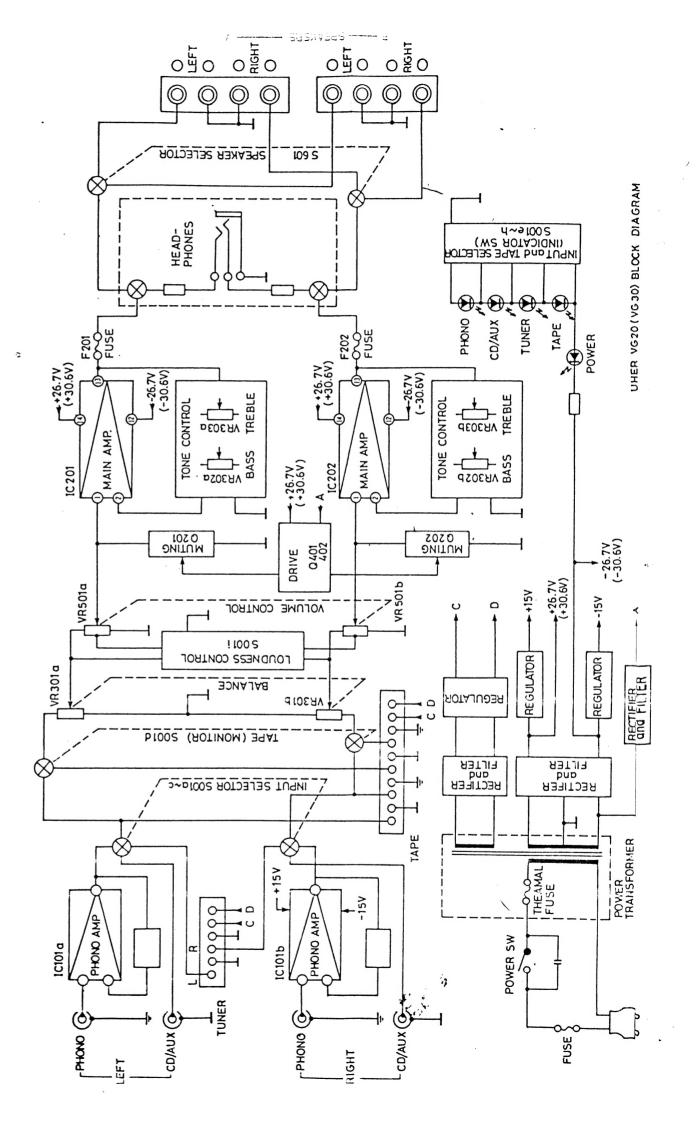
Änderungen der technischen Daten und des Designs bleiben ohne Ankündigung vorbehalten.

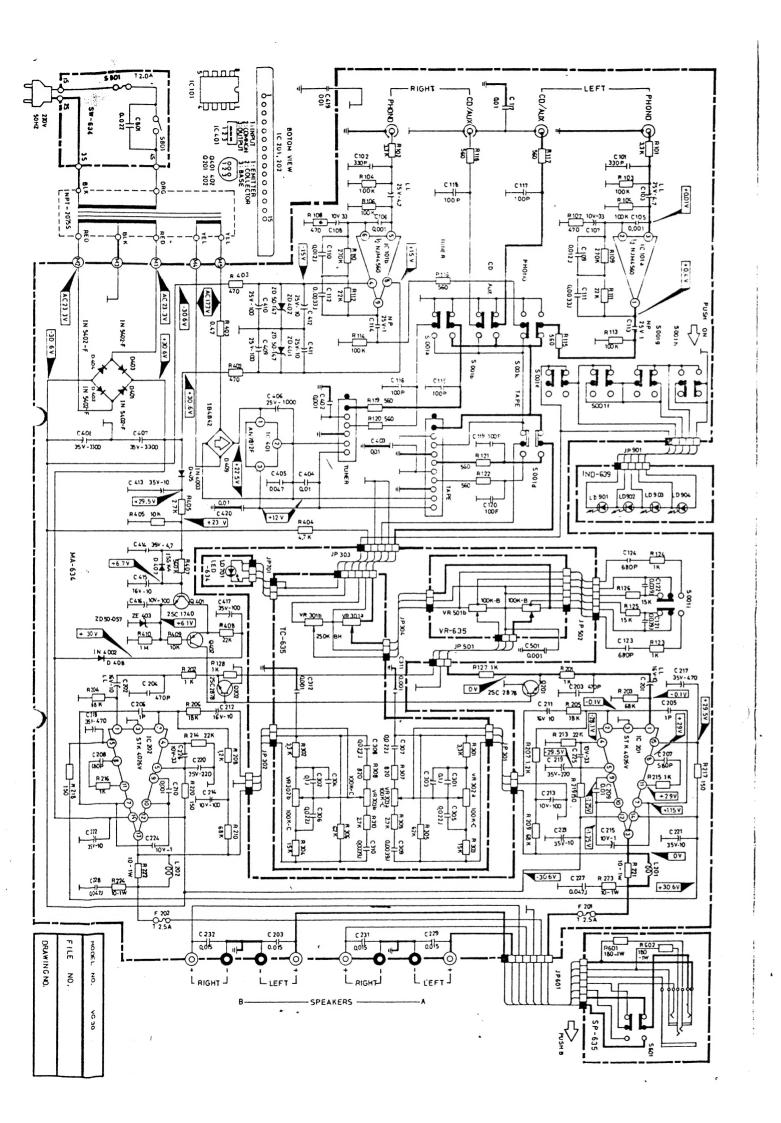
## **SPECIFICATIONS**

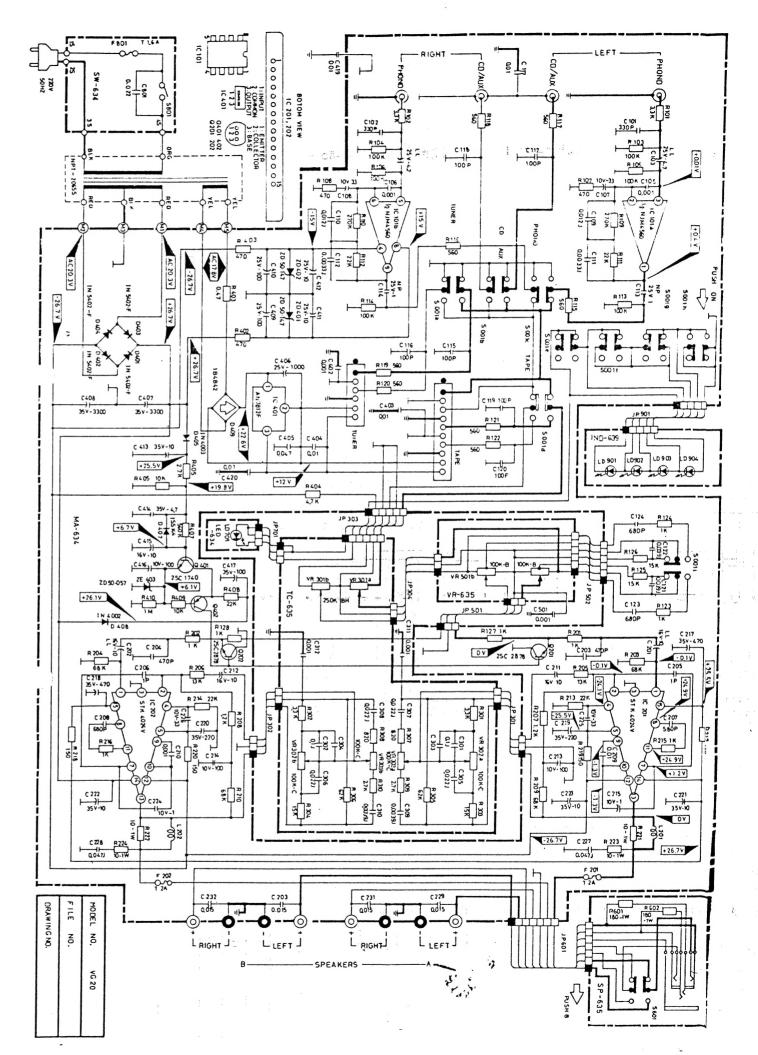
| the state of the s |                           |
|--|---------------------------|
| Intermodulation Distortion   |                           |
| $(70 \text{ Hz}: 7 \text{ kHz} = 4:1) \dots$   | Less than 0.9%            |
|  | at 10 watts into 4 ohms   |
| Residual Noise   |                           |
| Damping Factor   |                           |
|  | 40 (8 ohms)               |
| jut Sensitivity/Impedance  |                           |
| Phono  |                           |
| AUX  |                           |
| TAPE   | 150 mV/50 k ohms          |
| Maximum Input Level  |                           |
| Phone  | 150 mV                    |
| Signal-to-Noise Ratio (IHF, A)   |                           |
| Phono  |                           |
| Tuner, AUX, Tape   | 92 dB                     |
| Frequency Response   |                           |
| Phono  | RIAA standard curve ±1 dB |
|  | 40 Hz – 20 kHz            |
| Tuner, AUX, Tape   | 20 Hz - 25 kHz, ±3 dB     |
| Tone Control   |                           |
| Bass   | ±8 dB at 100 Hz           |
| Treble   |                           |
| Loudness Control   | +6 dB at 100 Hz           |
| (-30 dB Volume Level)  | +6 dB at 10 kHz           |
| Speaker Impedance  | 4 ohms                    |
|  |                           |

#### **GENERAL**

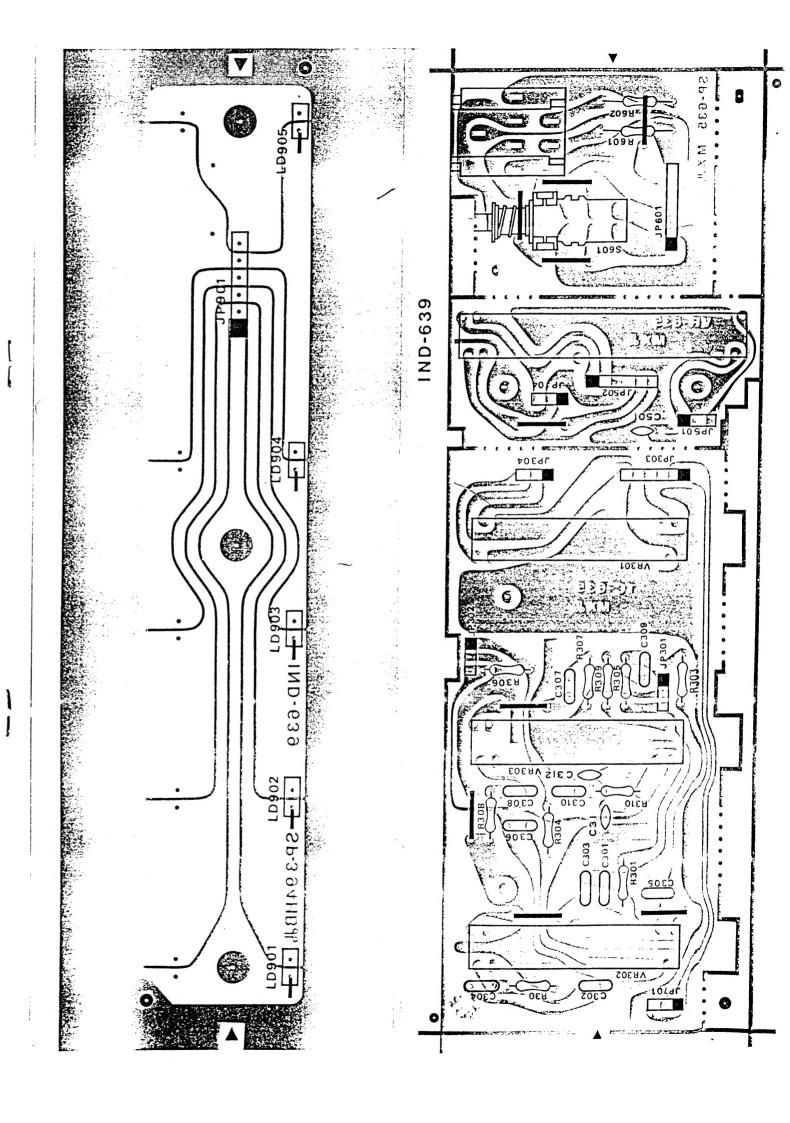
| Power Consumption   | 140 Watts (VG20)<br>200 Watts (VG30)           |  |
|---|--|--|
|   |  |  |
| Power Supply  | AC 220 V 50 Hz                                 |  |
| Dimensions  | $421(W) \times 240(D) \times 79(H) \text{ mm}$ |  |
| Net weight (approx.)  | 3.5 kg (VG20)                                  |  |
|   | 3.6 kg (VG30)                                  |  |
| Specifications and design are subject to change without notice. |  |  |

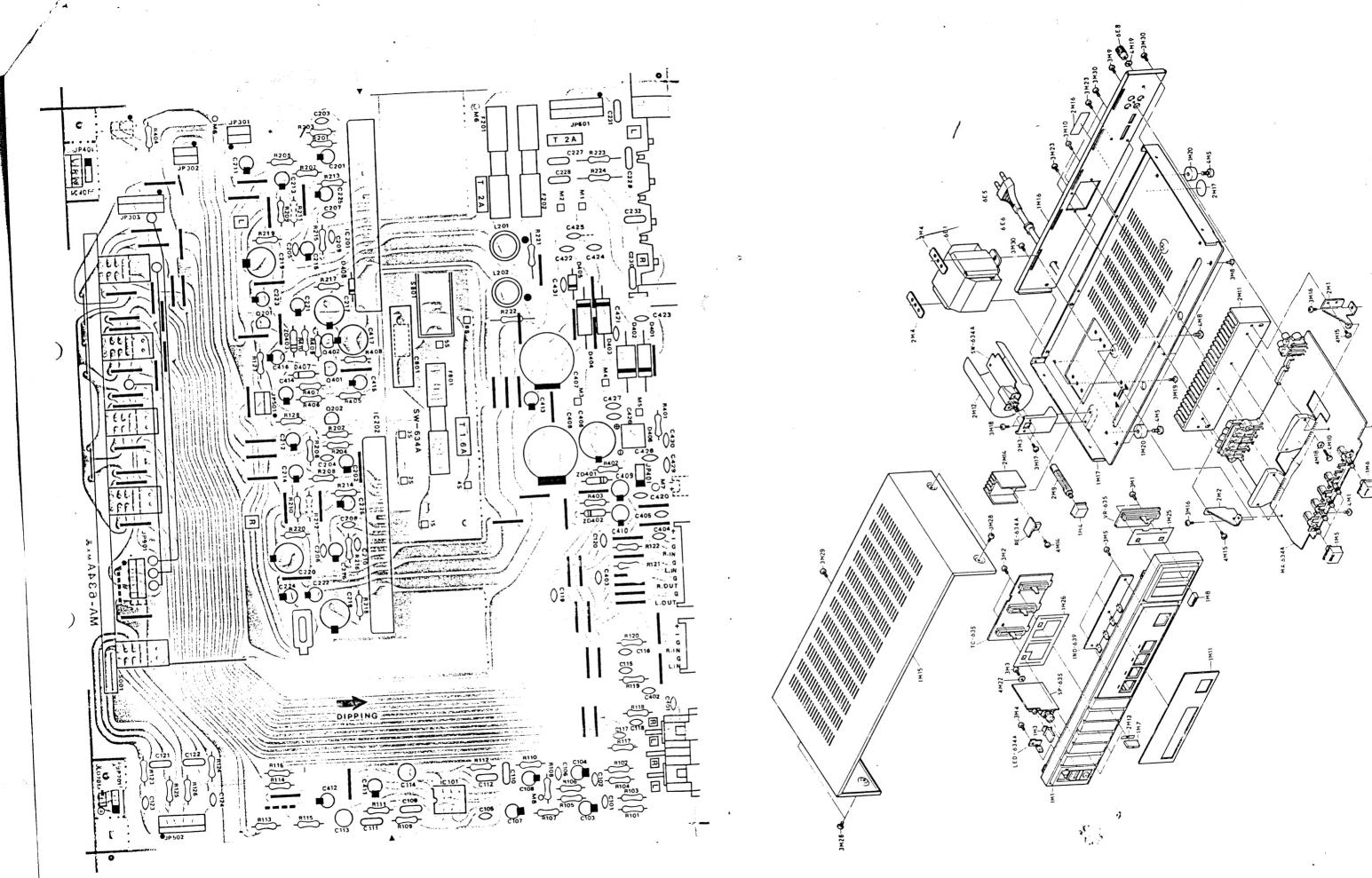






| Ref. No.   | Q'ty<br>2 3   | Part No.   | Description   |
|--|---|--|---|
| 1M 1<br>1M 3<br>1M 4<br>1M 5<br>1M 6<br>1M 7<br>1M 8<br>1M11<br>1M11<br>1M15<br>1M16<br>1M16<br>1M17   | 1 1 1 1 1 4 4 4 1 1 3 3 1 1 1 1 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 - 1 1 1 - 1 1 1 1 - 1 | N10380-1<br>N42326-S<br>N43866-BK<br>N44453 BK C<br>N44453 BK BU<br>N44455-BK-R<br>N30867-1<br>N30867-3<br>N21320<br>N21341<br>N21322-1A<br>N21340-1<br>N10381 -   | Front Panel Push Button Push Button Push Button Push Button Slide Knob Slide Knob Display Window Display Window Cabinet Cabinet Rear Panel Bottom Chassis Bottom Chassis  |
| 1M20<br>1M25<br>1M26   | 4 4<br>1 1<br>1 1   | NO.7102<br>N44515<br>N44530  | Foot<br>Volume Cloth .<br>Volume Cloth, 3   |
| 2M 1<br>2M 2<br>2M 3<br>2M 4<br>2M 5<br>2M 6<br>2M 9<br>2M10<br>2M11<br>2M12<br>2M13<br>2M14<br>2M15<br>2M16<br>2M17<br>2M18<br>2M19<br>2M20<br>2M21<br>2M21<br>2M22<br>2M24<br>2M27<br>2M27<br>2M28<br>2M29 | 1   | N44156<br>N44457<br>N44458<br>N42722<br>N30882<br>N44553<br>N44557<br>N30880-10<br>N30866A-50<br>N44516<br>N44243<br>N44522-40BK<br>N44558<br>SL. 1024<br>N41386<br>N41853-252<br>N41853-252<br>N41853-252<br>N41853-202<br>OM-506A<br>N41318-1<br>N40487<br>N21324<br>N4459<br>N44459<br>N44456<br>N44559<br>N44560 | Fittings R (Heat Sink) Fittings (L. Heat Sink) Fittings (Switch) Fittings (P.T.) Support Chassis (P.T.) Metal Plate Knob Shalt Heat Sink Heat Sink Insulation Cover Tape, Double Faced Heat Sink Spacer Label, Serial No. Label, Passed Label, Fuse Label, Fuse Instruction Manual Polyethylene Bag Polyethylene Bag Polyethylene Bag (Accessories) Packing Pad Shipping Carton Shipping Carton Packing Pad (Cabi) Packing Pad (Bottom)   |
| 3M 1<br>3M 2<br>3M 3<br>3M 4<br>3M 5<br>3M 8<br>3M 9<br>3M10<br>3M16<br>3M17<br>3M18<br>3M19<br>3M20<br>3M20<br>3M23<br>3M26<br>3M27<br>3M28<br>3M29<br>3M30   | 2 2 1 1 1 3 3 3 1 2 2 2 2 2 1 1 1 2 2 2 2   | TPM+30X08 Y TPM+30X08 Y TPM+30X08 Y TPM+30X08 Y TPM+30X08 Y TPM+30X08 B TPM+30X10 B TFM+30X10 B TFM+30X10 B TSB+30X06 N TSB+30X06 N TSB+30X06 N TSB+30X06 N TSB+30X06 N TSB+30X08 B TSB+30X08 B TSB+30X08 B TSB+30X08 B TSB+30X08 B TSB+30X08 B  | Tap Screw P, Round Head, Y Tap Screw P, Round Head, B Tap Screw P, Round Head, B Tap Screw P, Round Head, B Tap Screw S, Bind Head, N Tap Screw S, Bind Head, B |
| 4M 1<br>4M 8<br>4M 8<br>4M10<br>4M13<br>4M14<br>4M15<br>4M16<br>4M18<br>4M19<br>4M22   | 2 2<br>4 4<br>2 -<br>4 4<br>4 3<br>1 1<br>2 2<br>-<br>4 4<br>4 1<br>1 1   | TSC+30X08-Y<br>TSB+40X10-Y<br>TST+40X08-N<br>SSB+40X40-Y<br>ZP+STR26X16-2Y<br>TBB+30X08-B<br>TBB+30X08-Y<br>TBB+30X08-Y<br>TBB+30X08-Y<br>ZAWX0826-05-Y<br>2AWX0830-05-N<br>2AWX1230 08-Y  | Tap Screw S, Washer Faced, Y<br>Tap Screw S, Bind Head, Y<br>Tap Screw S, Truss, N<br>Screw, Bind Head, Y<br>Tap Screw, Pan Head, Y<br>Tap Screw B, Bind Head, B<br>Tap Screw B, Bind Head, Y<br>Tap Screw B, Bind Head, Y<br>Tap Screw B, Bind Head, Y<br>Tap Screw B, Bind Head, Y<br>Plain Washer, Y   |
| 6E 1<br>6E 1<br>6E 5<br>6E 6<br>6E 8   | 1 -<br>- 1<br>1 1<br>1 1<br>1 1   | NPT-2065S<br>NPT-2075S<br>ACC-005D3-4EC1<br>SR-3P4<br>UB-0027  | Power Transformer Power Transformer Line Cord Cord Stopper Binding Post   |
|  | 1 - 1 - 1 - 1   | 38A1P01A<br>38A1P01C<br>38A1P02A<br>38A1P02C<br>38A1P03A<br>38A1P03C   | P.C. Board Ass'y (LED.; MA.; RE.; SW-634A) P.C. Board Ass'y (LED.; MA.; RE.; SW-634A) P.C. Board Ass'y (SP.; TC.; VR-635) P.C. Board Ass'y (SP.; TC.; VR-635) P.C. Board Ass'y (IND-639) P.C. Board Ass'y (IND-639)   |





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